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PART III:

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Low Income Housing

■

PHA-Owned Projects; Utilities

Title 24—Housing and Urban Development

CHAPTER VIII—LOW-INCOME HOUSING; DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. R-76-354]

PART 865—PHA-OWNED PROJECTS—PROJECT MANAGEMENT

Utilities

On September 25, 1975, at 40 FR 44159, the Department proposed to amend Title 24 by adopting a new Part 865—PHA-Owned Projects—Project Management; Subpart D—Utilities; §§ 865.401 through 865.410 Individual Metering of Utilities for Existing PHA-Owned Projects. This amendment would implement HUD policies in support of national energy conservation goals by reducing energy consumption with the consequent reduction of operating costs for housing units in existing PHA-owned projects assisted under the United States Housing Act of 1937, by requiring that, to the extent, practicable, all utilities consumed directly by tenants shall be individually metered.

HUD received approximately 15 responses to the September 25, 1975 publication. All of these comments have been seriously considered and certain changes have been incorporated in these regulations as a result of these comments and other pertinent considerations. The principal changes are set forth below.

1. The provisions concerning Actions Affecting Tenants, § 865.407, have been strengthened by requiring PHA's to advise and assist tenants with high utility consumption to reduce their usage of utilities.

2. A new § 865.409 has been added to provide authority for HUD Field Offices to waive the requirements for individual Benefit/Cost Analysis on projects of similar design and utilities services when a Benefit/Cost Analysis of a representative project has determined that conversion to individual metering will not be cost effective.

3. A new § 865.410 has been added requiring PHAs to reevaluate Mastermeter systems without checkmeters at least every 36 months to determine if changes in Utility costs or regulations have resulted in a new situation where conversion to individual metering will now be cost effective.

Some of the recommendations contained in the comments received are not reflected in the final regulations. The more recurrent and significant of these comments are discussed below.

Several of the comments concerned the establishment of allowance for reasonable amounts of utilities to be consumed by tenants. The policies and procedures for establishing tenant allowances are under consideration and will be published in the near future as a proposed amendment to Title 24.

A few comments demonstrated concern that the PHAs could not fund the costs of conversion. Section 865.405 of the final regulation expressly provides that all costs of conversion plus any costs for performing the Benefit/Cost Analysis are eligible for Modernization Program funding and Development funds, if available, when operating funds are insufficient.

A variety of other comments indicated a partial misunderstanding of some of the details of the provisions that should be rectified by a careful reading of the final regulations. In general, the consensus of the comments was favorable to the concept of tenant responsibility for their Utilities consumption through the use of individual metering.

A Finding of Inapplicability respecting the National Environmental Policy Act of 1969 has been made in accordance with HUD procedures. A finding that this regulation is not subject to inflation impact requirements has also been made in accordance with HUD procedures. A copy of these findings is available for public inspection in the Office of the Secretary, Rules Docket Clerk, Department of Housing and Urban Development, Room 10245, 451 7th Street, S.W., Washington, D.C.

Accordingly, Title 24 is amended by adding a new Part 865—PHA-owned Projects—Project Management; Subpart D—Utilities; to Chapter VIII, to read as follows:

Individual Metering of Utilities for Existing PHA-Owned Projects.

Subpart D—Utilities

Sec.

865.401 Purpose.
865.402 Definitions.
865.403 Individually metered service.
865.404 Benefit/cost analysis.
865.405 Funding.
865.406 Order of conversion.
865.407 Actions affecting tenants.
865.408 Compliance schedule.
865.409 Waivers for similar projects.
865.410 Reevaluations of mastermeter systems.

AUTHORITY: Section 6(a)(4) United States Housing Act of 1937 (42 U.S.C. 1437d); section 7(d) Department of HUD Act (42 U.S.C. 3535(d)).

§ 865.401 Purpose.

The purpose of §§ 865.401–865.410 of this subpart is to implement HUD policies in support of national energy conservation goals by reducing energy consumption with consequent reduction of operating costs for existing PHA-owned housing projects assisted under the United States Housing Act of 1937, (the Act), by requiring that, to the extent practicable, all Utilities consumed directly by tenants shall be individually metered. Such individual metering will be accomplished either by (a) direct billing of charges to tenants by the Utility supplier with tenants receiving a reasonable allowance from the PHA for the tenant-supplied Utilities; or (b) utilizing a Mastermeter system with Checkmeters operated by the PHA and with tenants Surcharged for Utility consumption in excess of reasonable requirements.

§ 865.402 Definitions.

(a) "Benefit/Cost Analysis" means a direct comparison of the present worth of any savings generated by a given system during the expected useful life of the system or the estimated remaining life of the project, whichever is the shortest number of years, to the cost of the change.

(b) "Checkmeter" means a device for measuring Utility consumption within each individual dwelling unit where the Utility Service is supplied to the PHA through a Mastermeter. The PHA then ascertains from its reading of the Checkmeter it has installed the amount of tenant usage and Surcharges the tenants for excess usage.

(c) "HUD Field Office" means the HUD Regional, Area or Insuring Office which has been delegated authority under the United States Housing Act of 1937 to perform functions pertaining to this Subpart for the area in which the PHA is located.

(d) "Mastermeter System" means a Utility distribution system in which a PHA is supplied Utility Service by a Utility supplier through a system meter or meters and distributes the Utility Service to its tenants.

(e) "Meter Loops" means a device provided to accommodate future installation of a Utility meter.

(f) "Minimum Loan Interest Rate" means the rate of interest determined periodically by HUD applicable to loans and loan commitments made by HUD to PHAs.

(g) "Modernization Program" means the provision of financial assistance to PHAs under the Act for the purpose of upgrading living conditions, correcting serious physical deficiencies and achieving operating efficiency and economy with respect to PHA-owned housing assisted under the Act.

(h) "Retail Service" means purchase of Utility Service by PHA tenants directly from the Utility supplier.

(i) "Surcharge" means the amount charged to tenants for consumption of Utilities in excess of a reasonable allowance therefore, based on Utility use determined by means of a Checkmeter.

(j) "Utilities or Utility Service" means electricity, gas, heating fuel and water.

§ 865.403 Individually metered services.

(a) All Utility Service shall be individually metered to tenants, either through provision of Retail Service to the tenants by the Utility supplier or through the use of Checkmeters, unless:

(1) Individual Metering is impracticable, such as in the case of a central heating system in an apartment building;

(2) Change from a Mastermetering System to individual meters would not be financially justified based upon a Benefit/Cost Analysis; or

(3) Checkmetering is not permissible under state or local law, or under the policies of the particular Utility Supplier or public service commission.

(b) If Checkmetering is not permissible, Retail Service must be considered. Where Checkmetering is permissible the type of individual metering offering the most savings to the PHA shall be selected.

§ 865.404 Benefit/cost analysis.

(a) A Benefit/Cost Analysis shall be made to determine whether a change from a Mastermetering System to individual meters will be cost effective, except as otherwise provided in Section 865.407. In making this analysis the following percentage factors shall be used to estimate Utility consumption resulting from changes from a Mastermeter System without Checkmeters to systems with individual meters.

[In percent]

Utility function	Tenant retail service	Checkmeters
Lighting and refrigeration	75	85
Cooking	75	85
Domestic hot water	75	85
Space heating	65	75

(b) Proposed installation of Checkmeters must be justified on the basis that the cost of debt service (interest and amortization) of the estimated installation costs plus the operating costs of the Checkmeters will be more than offset by reduction in future Utilities expenditures to the PHA under the Mastermeter System. The following steps will normally be performed in making this analysis:

(1) Ascertain current Utility cost in terms of consumption by tenants and the applicable rate utilizing monthly billings and data from the Utility supplier. The monthly average should be based on data for the preceding 12-month period.

(2) Estimate changes in consumption after installation of Checkmeters utilizing the table set forth in (a) above.

(3) Compute Utility cost after installation of Checkmeters using the applicable rate.

(4) Compute the gross annual savings resulting from use of Checkmeters.

(5) Estimate the costs of operation of the Checkmeter System, including maintenance, repairs, meter reading, and billing.

(6) Compute the net annual savings.

(7) Compute the present worth of savings for a 20-year period using the current Minimum Loan Interest Rate.

(8) Estimate costs of Checkmeter purchase and installation, including cost of meters, meter loops, labor, and materials.

(9) Compare (b) (7) and (8) above. If (b) (7) is greater than (b) (8) the conversion is cost effective.

Example

1. Electricity is used for tenant lighting and refrigeration in a 210-unit family project. Average monthly billing is $3,120 for 120,000 Kwh. Annual cost of electricity is:

$$\$3,120 \times 12 = \$37,440$$

2. After installation of Checkmeters (with surcharging of tenants for excess consumption) tenant electric consumption will be reduced to 85% of consumption under Mastermetering without Checkmeters.

Estimated consumption:

$$120{,}000 \text{ Kwh} \times 0.85 = 102{,}000 \text{ Kwh}$$

3. Compute expense of electricity after installation of Checkmeters. Applicable electric rate schedule, obtained from electric company is:

Energy charge: 3.50¢ per Kwh first 20,000 Kwh, 2.50¢ per Kwh next 30,000 Kwh, 1.50¢ per Kwh next 50,000 Kwh, 1.00¢ per Kwh all additional. Fuel adjustment is 0.6¢ Kwh for all power sold.

Application of the above light and power rate, computed on the basis of consumption is:

20,000 Kwh at 3.5¢ per Kwh	$700
30,000 Kwh at 2.5¢ per Kwh	750
50,000 Kwh at 1.5¢ per Kwh	750
2,000 Kwh at 1.0¢ per Kwh	20
Fuel adjustment: 102,000 Kwh at 0.6¢ per Kwh	612
Average monthly expense	2,832
Total annual expense for electricity after installation of Checkmeters is: $2,832×12	33,984

4. Gross annual savings is:

$$\$37,440 - \$33,984 = \$3,456$$

5. Cost of operating Checkmeters is estimated to be $683 annually.

6. Net annual savings:

$$\$3,456 - \$683 = \$2,773$$

7. Compute present worth of savings using present worth factor from interest tables (present worth factor used is for a 5% Minimum Loan Interest Rate and a 20-year period):

$$\$2,773 \times 12.462 = \$34,557$$

8. Estimated installation cost of Checkmeters is $10,500.

9. (7) is greater than (8) therefore conversion is cost effective.

(c) Proposed conversion to Retail Service must be justified on the basis of net savings to the PHA. This determination involves making a comparison between the reduction in Utility expense obtained through eliminating the expense to the PHA for PHA-supplied Utilities compared to the resultant allowance for tenant-supplied Utilities based on the cost of Utility Service to the tenants after conversion. The following steps will normally be performed in making this analysis:

(1) Ascertain current Utility costs in terms of consumption by tenants and the applicable rate utilizing monthly billings and data from the Utility supplier, based on data for the preceding 12-month period.

(2) Estimate annual cost of maintenance and repair of existing Utility system for the same 12-month period.

(3) Compute total annual expense of Utility service (sum of (c) (1) and (2)).

(4) Estimate changes in consumption after conversion to Retail Service, utilizing the table set forth in (a) above.

(5) Compute Utility cost after conversion to Retail Service using the applicable Retail Service schedule.

(6) Compare (c) (3) and (5). If (c) (3) is greater, conversion to Retail Service will be cost effective.

Example

1. Electricity is used for tenant lighting and refrigeration for a 505-unit family project. Average monthly billing is $7,807 for 237,400 Kwh. Annual cost of electricity is:

$$\$7,807 \times 12 = \$93,684$$

2. Estimated average cost of maintenance and repair to the Mastermeter System is $754 per month. (Assume the system can be converted to Retail Service without cost to the PHA.) Annual expense is:

$$\$754 \times 12 = \$9,048$$

3. The total annual expense of Utility service is:

$$\$93,684 + \$9,048 = \$102,732$$

4. The estimated average tenant monthly consumption after conversion to Retail Service is 75% of consumption under Mastermetering without Checkmeters:

$$(237{,}400 \text{ Kwh} \times 0.75) \div 505 = 353 \text{ Kwh}$$

5. Applicable residential electric rate schedule obtained from power company is: $2.00 for first 10 Kwh, 5.0¢ per Kwh for next 40 Kwh, 4.0¢ per Kwh for next 50 Kwh, 2.5¢ per Kwh for all additional. Fuel adjustment is 0.5¢ per Kwh for all power sold.

6. Annual cost of electricity based on foregoing schedule and estimated average tenant monthly consumption is:

$$\$14.10 \times 12 \times 505 = \$85,446$$

7. Since (3) is larger than (6) conversion is cost effective.

§ 865.405 Funding.

The cost to change Mastermeter Systems to Individual metering of tenant consumption including the costs of Benefit/Cost Analysis, and complete installation of Checkmeters shall be funded from operating funds of the PHA to the extent feasible. When sufficient operating funds are not available for this purpose, such costs are eligible for inclusion in a Modernization Program or for funding from any available Development Funds.

§ 865.406 Order of conversion.

Conversions to individually metered Utility Service shall be accomplished in the following order where a PHA has projects of two or more of the designated categories, unless otherwise approved by the HUD Field Offices:

(a) In projects where Retail Service is provided by the Utility supplier and the PHA is paying all the individual Utility bills, no Benefit/Cost Analysis is necessary and tenants shall be billed directly after the PHA adopts revised rent schedules providing appropriate allowances for tenant-supplied utilities.

(b) In projects where Checkmeters have been installed but are not being utilized as the basis for determining Utility charges to tenants, no Benefit/Cost Analysis is necessary and the Checkmeters shall be utilized as the basis for such charges, and tenants shall be Surcharged for excess Utility use.

(c) Projects where Meter Loops have been installed for utilization of Checkmeters, shall be analyzed both for the installation of Checkmeters and for conversion to Retail Service.

(d) Low or medium rise family units with a Mastermeter System should be analyzed for both Checkmetering and conversion to Retail Service, because of their large potential for energy savings.

(e) Low or medium rise housing for elderly should next be analyzed for both Checkmetering and conversion to Retail Service, since the potential for energy saving is less than for family units.

(f) Electric Service under Mastermeters for high rise buildings, including

projects for the elderly, should be analyzed for both use of Retail Service and of Checkmeters.

§ 865.407 Actions affecting tenants.

(a) Prior to making any conversion to Retail Service the PHA shall adopt revised rent schedules providing appropriate allowances for the tenant-supplied Utilities resulting from the conversion.

(b) Prior to implementing any modifications to Utility Services arrangements with the tenants or charges with respect thereto, the requisite changes shall be made in tenant dwelling leases in accordance with the requirements of 24 CFR Part 866 Subpart A.

(c) To the extent practicable, PHAs should work closely with tenant organizations in making plans for conversion of Utility Service to individual metering, explaining the national policy objectives of energy conservation, the changes in charges and rent structure which will result, and the goals of achieving an equitable structure which will be advantageous to tenants who conserve energy.

(d) A transition period of at least six months shall be provided in the case of initiation of Checkmeters during which tenants will be advised of the charges but during which no Surcharge will be made, based on such readings. This trial period will afford tenants ample notice of the effects the Checkmetering System will have on their individual Utility charges and also afford a test period for the adequacy of the Utility allowances established.

(e) During and after the transition period PHA's shall advise and assist tenants with high utility consumptions on methods for reducing their usage. This advice and assistance may include counseling, installation of new energy conserving equipment or appliances and corrective maintenance.

§ 865.408 Compliance schedule.

(a) PHA's shall complete Benefit/Cost Analysis for all Mastermetered projects within eighteen (18) months after the effective date of the final rule.

(b) Mastermetered projects determined to be cost effective for conversion to Retail Service or Checkmetering shall be so converted within thirty (30) months after issuance of the final rule unless the HUD Field Office determines that funds are not available for this purpose.

§ 865.409 Waivers for similar projects.

PHA's with more than one project of similar design and utilities service may prepare a Benefit/Cost Analysis for a representative project. A finding that a change in metering is not cost effective for the representative project is sufficient reason for the HUD Field Office to waive the requirements of this subpart for Benefit/Cost Analysis on the remaining similar projects.

§ 865.410 Reevaluations of Mastermeter Systems.

Because of changes in the cost of utility services and the periodic changes in utility regulations, PHA's with Mastermeter Systems are required to reevaluate Mastermeter systems without checkmeters by making Benefit/Cost Analyses at least every 36 months. HUD Field Offices may grant waivers of this requirement upon making a finding as provided in paragraph 865.409.

Effective date: This part is effective on May 17, 1976.

JAMES L. YOUNG,
Assistant Secretary for Housing Management.

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